| **Instructions:**  Evaluate the homework against the outlined criteria in the below rubric, assigning a rating to each criterion. Add points earned across all criteria and convert the total points to a letter grade, assigning a “+” or “-” letter grade designation at your discretion. | | A (+/-) | 75+ | C (+/-) | 35-54 | F (+/-) | <15 | | --- | --- | --- | --- | --- | --- | | B (+/-) | 55-74 | D (+/-) | 15-34 |  |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Notes:**  The deployed assignment utilizes the **OpenWeatherMap API** and the **citipy** library to complete the challenge. The source code should also be deployed to **GitHub** or **GitLab**. |  |

**Rubric for WeatherPy:**

|  | **Mastery**  **20 points** | **Approaching Mastery**  **15 points** | **Progressing**  **10 points** | **Emerging**  **5-0 points** | **Incomplete** |
| --- | --- | --- | --- | --- | --- |
| **API Querying** | ✓ API Key was imported from external script and used as variable  ✓ Correctly loops over the list of cities  ✓ No errors interrupt the API call loop  ✓ Prints out the current number and name of the city they are currently retrieving data for | ✓ API Key was imported from external script and used as variable  ✓ Correctly loops over the list of cities  ✓ No errors interrupt the API call loop  ✓ Does not print out the current number and name of the city they are currently retrieving data for | ✓ API Key is hardcoded rather than stored in external file  ✓ Correctly loops over the list of cities  ✓ Some errors occur during the API call loop  ✓ Does not print out the current number and name of the city they are currently retrieving data for | ✓ API Key is hardcoded rather than stored in external file  ✓ Loops over a static range rather than the length of the cities list  ✓ Loop throws too many errors to complete  ✓ Does not print out the current number and name of the city they are currently retrieving data for | No submission was received  -OR-  Submission was empty or blank  -OR-  Submission contains evidence of academic dishonesty |
| **Data Modeling** | ✓ A pandas DataFrame is created and saved to a .csv from the data retrieved from the API.  The DataFrame contains 500+ rows in all of the following columns:  ✓ City latitude  ✓ City longitude  ✓ Max temperature  ✓ Humidity  ✓ Cloud coverage  ✓ Wind speed  ✓ City country  ✓ City datetime  -AND-  For part II a dataframe is created  that contains the following:  ✓ Ten or less rows.  ✓ City  ✓ Country  ✓ Latitude  ✓ Longitude  ✓ Hotel Name | ✓ A pandas DataFrame is created but not saved to a .csv from the data retrieved from the API.  The DataFrame contains 500+ rows in 4-6 of the following columns:  ✓ City latitude  ✓ City longitude  ✓ Max temperature  ✓ Humidity  ✓ Cloud coverage  ✓ Wind speed  ✓ City country  ✓ City datetime  -AND-  For part II a dataframe is created  that contains at least the following:  ✓ City  ✓ Latitude  ✓ Longitude  ✓ Hotel Name | ✓ A pandas DataFrame is created, but not saved to a .csv from the data retrieved from the API.  The DataFrame contains 300-500 rows or only has 2-3 of the following columns:  ✓ City latitude  ✓ City longitude  ✓ Max temperature  ✓ Humidity  ✓ Cloud coverage  ✓ Wind speed  ✓ City country  ✓ City datetime  -AND-  For part II a dataframe is created  but does not contain the following:  ✓ Ten or less rows  ✓ Hotel Name | ✓ A pandas DataFrame is created, but not saved to a .csv from the data retrieved from the API.  ✓ The DataFrame contains 200 or less rows or only has 1 column of data:  -OR-  ✓ A pandas DataFrame is never created |
| **Plot Creation** | A plot is created with a title, axis labels and saved as a .png file for all of the following:  ✓ Latitude vs Temp  ✓ Latitude vs Humidity  ✓ Latitude vs Cloudiness  ✓ Latitude vs Wind Speed  -AND-  A plot is created for linear  regression with a title, axis label and  saved as a .png file for all of the  following:  ✓ Northern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Southern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Northern Hemisphere -  Humidity (%) vs. Latitude  ✓ Southern Hemisphere -  Humidity (%) vs. Latitude  ✓ Northern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Southern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Northern Hemisphere -  Wind Speed (mph) vs.  Latitude  ✓ Southern Hemisphere -  Wind Speed (mph) vs.  Latitude | A plot is created for all of the following, but may omit a title, axis labels, or both:  ✓ Latitude vs Temp  ✓ Latitude vs Humidity  ✓ Latitude vs Cloudiness  ✓ Latitude vs Wind Speed  -AND-  A linear regression plot is created for all of the following, but may omit a title, axis labels or both:  ✓ Northern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Southern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Northern Hemisphere -  Humidity (%) vs. Latitude  ✓ Southern Hemisphere -  Humidity (%) vs. Latitude  ✓ Northern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Southern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Northern Hemisphere -  Wind Speed (mph) vs.  Latitude  ✓ Southern Hemisphere -  Wind Speed (mph) vs.  Latitude | A plot is created for 2-3 of the following, and may omit a title, axis labels, or both:  ✓ Latitude vs Temp  ✓ Latitude vs Humidity  ✓ Latitude vs Cloudiness  ✓ Latitude vs Wind Speed  -AND-  A plot is created for 2-3 of the  following or not split into  hemispheres, and may omit a title,  axis labels, or both:  ✓ Northern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Southern Hemisphere -  Temperature (F) vs.  Latitude  ✓ Northern Hemisphere -  Humidity (%) vs. Latitude  ✓ Southern Hemisphere -  Humidity (%) vs. Latitude  ✓ Northern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Southern Hemisphere -  Cloudiness (%) vs.  Latitude  ✓ Northern Hemisphere -  Wind Speed (mph) vs.  Latitude  ✓ Southern Hemisphere -  Wind Speed (mph) vs.  Latitude | ✓ 1 plot is created, but may be incorrect  -OR-  ✓ No plots are created |
| **Data**  **Analysis** | ✓ Analysis correctly describes 3 observable trends  ✓ Analysis provides sound reasoning to back up why all 3 trends are occurring. | ✓ Analysis correctly describes 3 observable trends  ✓ Analysis provides some reasoning to back up why the trends are occurring. | ✓ Analysis describes only 2 observable trends  ✓ Analysis provides little to no reasoning to back up why trends are occurring. | ✓ Analysis only describes 1 observable trend  ✓ Analysis is missing and/or does not contain any evidence to support their claim(s) |
| **Google Maps** | ✓ A heatmap is successfully created.  -AND-  A second map is created that contains:  ✓ Ten or less pins for all the cities in the DataFrame.  ✓ Pins are clickable to display City, Country and Hotel Name.  ✓ Placed on top of the heatmap. | ✓ A heatmap is successfully created.  -AND-  A second map is created that contains:  ✓ Ten or less pins for all the cities in the DataFrame.  ✓ Placed on top of the heatmap. | ✓ A heatmap was attempted but does not display correctly.  -AND-  A second map is created that contains:  ✓ More than ten pins.  ✓ Not placed on top of the heatmap. | ✓ A heatmap and a second map were attempted but did not display correctly.  -OR-  ✓ No maps were displayed. |